ABSTRACT

"REGIONAL IMBALANCE IN AGRICULTURE DEVELOPMENT OF NASHIK DISTRICT: A GEOGRAPHICAL ANALYSIS"

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INTRODUCTION

Agriculture is the most important activity in india. Near about 75% population of india engaged in agriculture field. Agriculture is one of the oldest and prime activities of the human being. The word agriculture is derived from the Latin word ‘ager’ means the land or field and ‘cultra’ means cultivation. It means the science and art of producing crops and livestock for economic purpose. Agriculture is an art of raising plant life from the soil for the use of mankind. The basic aim of agriculture is to raise stronger and more fruitful crops and plants and to help them for their growth by improving the soil and supplying the water. Agriculture is the mile stone in the history of human civilization, due to agriculture man settled at a particular place. Agriculture is a backbone of Indian economy.

Agriculture geography is the study of agriculture activity of people. There is a considerable variation agriculture activity in different region of the owing to relief, terrain, climate, the type of soil, and availability of irrigation. So, the study of agriculture geography includes the variations in agriculture activities also. When studying this variation, one tries to specifically point the factors that have brought about this variation.

Major changes in the use of agricultural land in India took place during the plan periods. Some of these were due to the organized technical advances in agriculture, some to changes in the profitability of Different agricultural enterprises and the rest to the expansion of irrigation facilities. These changes improved the use for the agricultural land and increased yield per hectare, placing agricultural progress on a permanent footing. Changes wrought in ‘Agricultural efficiency’ by favorable incidence of rainfall are of temporary nature. Still, there are weaker areas in the agricultural economy of India where agricultural efficiency is very low, low, moderately low or below the national index; in some parts farm production performances observed even a negative trends;. This is a common feature of the underdeveloped area lying in the dry and semi-humid zones where agriculture is primarily rain fed. Before we can delimit such areas and suggest any remedial steps to increase production, we need some technique to measure the efficiency of the existing performance in agriculture. And the same is an effective measure of reckoning the efforts to change the agricultural potentials into agricultural production between any

two points of time. Moreover, the spatial representation of agricultural efficiency can help in delimiting the classes of agricultural land; a sound method of land classification based on productivity at the national level. A survey of the area differences in the efficiency of agriculture is useful for differentiating area whose performances are rather poor in comparison with others in the field of agriculture. Changes in agricultural efficiency also help in understanding the extent of accomplishments. On account of its multitudinous utility many scholars have long been engaged in the fields of geography of agriculture and the economics efficiency in the various parts of the world. Evaluation of the various approaches to measure the agricultural performances reveals that most of them suffer from some noted weaknesses (Jabir Singh, 1972).

Agricultural geography relates to agricultural activities of people. It examines the various agricultural activities, the places where they take place, how those activities are carried on and why those agricultural activities are there. The activities are cultivation of crops, dairying and horticulture. Location includes discussion on whether it is a level plain and, if so, it irrigated farming or non-irrigated farming? If it is a hilly area, whether it is terraced farming or shifting cultivation. It also examines if it is mechanized or indigenous farming.

Agricultural region at the macro, meso, and micro levels were demarcated and finally, attention was paid on prevention of land degradation, desertification. The question of agriculture of agricultural productivity and regional imbalance was in its scope. Agriculture geographer thought that agricultural productivity should be linked with regional imbalance. So, the question as to how productivity per unit should be raised and what measures should be adopted to reduce regional imbalances. Attempts were made to classify a region into high, medium, and low productivity regions and to examine as to which factors should be increased and which of the factors should be minimized or even eliminated to reduce imbalances. Regional imbalance have become one of the most important glaring and growing problem not only in developed country but also most advantage countries of the world (Sharma & Kumar 1993). Agriculture development Tehsil of Nashik district surprisingly it carries greater regional imbalance in overall development in general and the agricultural development in particular.

SELECTION OF STUDY AREA & SIGNIFICANCE

Regional imbalance in agriculture development it is main problem in the agriculture field. According to availability of natural resources like, water sources, river bank, irrigation facilities, fertile soil, favorable climate etc. and human resources, hence some agriculture field is more developed comparatively the other region due to lack of amenities and facilities which is belong to that agriculture field. In Nashik district also found such situation in agriculture development. The north part of district is more developed comparatively south part of district. Basically north area of district is along the Godavari river basin, Godawari River has been providing the water as well fertile soil for more agriculture productivity. Also same area banana crop is very dominant than other part of the district. The south region of the district is very lack of sources and also human facilities hence this area is very low developed than north part of the district. My guide also thought and considered the importance of the subject and inspired me to research on regional imbalance in Agriculture development of Nashik district. Therefore, has selected the Research topic related to significance of agriculture in economy of Nashik district. In this district there are variety in agriculture development, some where it much and some region are undeveloped. Is there difference in these agriculture regions? If it may be, which are responsible factors, its solutions and how it is beneficial and the impact of the research on Agriculture? It is important to study of imbalance in Agriculture development and find out the answers of it. Surely it would be utilized for the future planning in Agriculture development of Nashik district.

REVIEW OF LITERATURE

The present research topic of regional imbalance in agriculture development in Nashik district, a geographical analysis. where the imbalance mean that agricultural development of same region is not even due to various types of factors like, physical, water sources, river basin, type of soil, etc. also some human, economic, transportation, factors etc. are responsible for regional imbalance in agriculture development of given study area. In economic geography the (Stamp, 1958) of fundamental difficulty in measuring agricultural efficiency in different parts of the world is obviously on account of the range and variety of the crops raised. It is,

however, possible to convert the production of food crops into calories, which can be used to measure the carrying capacity of the land in terms of population. Carrying capacity is a sense is a measure of farming efficiency.

The other method agriculture geography the (Jasbir singh, 1972) a survey of the areal differences in the efficiency of agricultural is useful for differentiating and delineating regional differences in the efficiency of agriculture research areas whose performances are rather poor in comparison with others in the field of agriculture area. Change in agricultural efficiency also helps in understanding the extent of accomplishments. On account of its ranges utility many scholars have long been engaged in the fields of geography of agriculture and the economics of agriculture for evolving method to measure the agricultural efficiency in the various part of the world; Evaluation of the various approaches to measure the agricultural performances revealed that most of them suffer from some noted weakness. A (Chakravarti, 1970) the best way to measure the carrying capacity is to determine the caloric output available for ingestion per square kilometer of area under food crops after making careful total deduction for usage and wastage which adds upto 16.80 percent of the total production in India an agriculture economy. An (M. G. Kendall) the patterns of agricultural productivity of India have been delineated with the help of Kendall's method. Kendall's devised four ranking coefficients of determining crop productivity regions - 1) yield per determining crop productivity regions – 2) converting food grains into starch value, 3) converting food grains into calories, and 4) money value of crops.

The some work has been done in the agriculture development are as follows, Dr. Shafiqullah, department of geography in Muslim University, India is the studied as the Impact of Regional Disparities On Agriculture Development in Uttar Pradesh – A Geographical Analysis. Especially another work on the agriculture development research paper has been done on the subject of 'Regional Disparity in Agricultural Development in Satara District of Maharashtra' by the Assistant Professor Dr. Pawar D. H and Shri. Jadhav K.R, Dept. of Geography, Shivaji University, Kolhapur and Asst. Professor, Dept. of Geography, Krantising Nana Patil College, Walwa Respectively. Satara is one of the agriculturally dominant district of Maharashtra state. However, district experiences more regional disparities in the development of agriculture. In the research work disparity has been analyzed Tahsil level. Patil B. D.

(2013) Studied the Regional Disparities in Levels of Agricultural Development in Dhule and Nandurbar District, India. Shahada Tahsil has reveal higher level of agriculture development carrying composite index of development about 157.95 follwed by Taloda and Shirpur while poorer level of development shown n Shindkheda tahsil. The principal objective of this paper is to determine the levels of agricultural development at tahsil stage during the period of triennial 2001-2003. Ganguli (1938) in his Study of the Ganges Valley presented a theoretical discussion for computing productivity in agriculture. He took into account the area under any crop 'A' in a particular unit area belonging to a certain region.

The Indian Society of Agriculture Economics, considered the problem and published a series of articles under the broad head ' Regional variation in Agricultural Development and productivity' among the contributors Chatterji and Maitreya (1964) have determined the level of agricultural development and productivity during 1950-51 to 1957-58 in state of West Bengal two crops (rice and jute) in consideration. Dhondyal (1964) has measured variation in agriculture development and productivity by selecting three representative district from the three regions of the Uttar Pradesh, while assessing the role of credit, intensive crop enterprises, and the influence of irrigation water during 1962-63. Safi (1965) has assessed the productivity on the basic of labour population engaged in agriculture. According to him, it can be computed by dividing the gross production in an unit area by the number of man-hours or less precisely by the number employed in agriculture. In order to assess the productivity on the basic of population engaged in agriculture it can either be obtained by dividing the total production with the number of workers per unit of production is assessed.

STUDY AREA

The Nashik District lies between 19° 35' and 20° 52' North Latitude and 73° 16' and 74° 56' east longitude, with an area of 15,582'0 km.2 (6,015 sq. miles). The Nashik district was formed in the year 1869 with the city of Nashik as its district headquater. Nashik district, also known as Nasik district, is a district in Maharashtra, India. The city of Nashik is the administrative headquarters of the district. Nashik is well known for the production of wine. Nashik is also known as Mini Maharashtra, because the climate and soil conditions of Surgana, Peth, Igatpuri resembles with Konkan.

Niphad, Sinnar, Dindori, Baglan blocks are like Western Maharashtra and Yeola, Nandgaon, Chandwad blocks are like Vidarbha Region. Nashik, Malegaon, Manmad, Igatpuri are some of the big cities situated in the Nashik District

OBJECTIVE

1. To study the crop concentration and diversification of study area.
2. Analyses the factor that lead to high, medium, and low concentration index
3. Examine the geographical pattern of regional imbalance in Nashik district.
4. To find out the irrigation status of the study region.
5. To find out comparative study of agriculture imbalance in Nashik District.
6. To find out agriculture development in Nashik district.

HYPOTHESIS

1. There is agriculture imbalance in Nashik district.
2. Agricultural imbalance is effecting on socio-cultural and economic development in study area.
3. Irrigation facility is effecting on agriculture imbalance.

DATA BASE & METHODOLOGY

The data and the information are the most vital requirement for a research. The analysis of the entire research is to be based on the data and information collected. Hence, the present research work is based on both primary and secondary source of data.

Secondary data:

The secondary data has been the major source and based for present study. Secondary data collected from Nashik district statistical Abstract, socio-economic abstract, district census handbook, department of Irrigation, Ground water survey and Development Agency, Taluka Land Record Office in order to obtain village wise data on agriculture land use, agriculture statistical information from agricultural department of Maharashtra, Zillah parishads, panchayat samitis, talathi offices, season and crop reports, district gazetteers.

Primary data:

Primary data is the raw data collected through various sources for which special questionnaires were designed and information collected from various farmers. Besides this another questionnaire is filled from concerned Talathi, Gramsevak and sarpanch of the villages to get more information of sample villages.

METHODOLOGY

The data collected is analyzed by applying different suitable statistical methods and is presented through maps, table and diagrams. Also relationship between selected variables was used for correlation coefficient, multiple regression and Factor Analysis techniques. As the study purpose to be geographical spirit the chorographic and chorological methodologies were adopted

1. For the calculating the crop concentration of region.
2. For the calculating of crop Diversification of the region, Bhatia's method has been applied.
3. For the calculating the Location Quotient of the region, Mohammad Safi's method has been applied.
4. For the computation the crop productivity of the region, with help of Enyedi's formula.

$$\textbf{Productivity Index} = \frac{Y}{Yn} \div \frac{T}{Tn} \times 100$$

Where,

Y = Production of the respective crop in the unit areas.
Yn = Total Production of the crop in entire region.
T = Area under selected crop in a unit area.
Tn = Area under selected crop in entire region.

5. For the calculating the Agriculture development of the region. Following method has been applied.

$$CDi = \frac{Pi}{PI}$$

Where,

CDi = the coefficient of development for variable 'i'
pi = percentage of variable 'i'
PI = mean percentage of variable 'i', in the whole region.

CHAPTER OUTLINE

The entire research work is organized into seventh chapter.

The **first Chapter** entitled '**introduction**' deals with concept of Agriculture, which includes important of the study, study area, objective, hypothesis, database, and methodology, review of literature and chapter outline.

The **Second chapter** is associate with the various background of region. The chapter includes the Location, and boundaries of study region, historical background, physiographical, drainage, climate, soil, natural vegetation. The background of the region is also briefly discussed.

The **third chapter** is concerned with crop concentration and crop diversification of Nashik District.

The **Forth chapter** deals with the general Productivity and Level of Agriculture Productivity, other important aspect included in the chapter are the Location quotient.

Fifth chapter present the level of Agriculture Development and regional imbalance in Nashik district, covering the cluster analysis for the year 2008 to 2018.

The **sixth chapter** deals with the case study of the two tehsil in Nashik district, few village included the tehsil in case study.

The **seventh chapter** associated with observation, conclusion and suggestions based on the study.

Finally the references, bibliography, articles and reports are listed.

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